

What is claimed is:

1. An oscillator circuit, comprising:
  - a variable current source that is arranged to provide a reference current, wherein the reference current is dependent on at least one of temperature and a supply voltage;
  - a current mirror that is coupled to the variable current source and operable to mirror the reference current across a resistive element to produce a reference voltage, wherein a value of the resistive element is relatively independent of temperature;
  - a switch circuit that is coupled between the current mirror and a capacitive circuit, wherein the switch circuit is operable to periodically charge and discharge the capacitive circuit; and
  - a switch control circuit that is coupled to the reference voltage and coupled to the capacitive circuit, wherein the periodic charging and discharging of the capacitive circuit is employed by the switch control circuit to provide an oscillating output signal that is relatively independent of a change in temperature and a change in the supply voltage.
2. The oscillator circuit of Claim 1, wherein the switch circuit further comprises a switch element that is coupled between the capacitive circuit and the current mirror and another switch element that is coupled between the capacitive circuit and ground.
3. The oscillator circuit of Claim 1, wherein the capacitive circuit further comprises a first capacitive element and a second capacitive element, wherein the first capacitive element is periodically charged and then discharged while a second capacitive element is periodically discharged and then charged by the switch circuit.
4. The oscillator circuit of Claim 3, wherein a value of the first capacitive element is relatively equivalent to a value of the second capacitive element.

5. The oscillator of Claim 3, wherein a value of the first capacitive element is relatively dissimilar to a value of the second capacitive element.

6. The oscillator of Claim 3, wherein the switch control circuit further comprises a comparator that includes an input coupled to the reference voltage, wherein the first capacitive element is coupled to another input of the comparator and the second capacitive element is coupled to another input of the comparator.

7. The oscillator circuit of Claim 3, wherein the switch control circuit further comprises a first comparator and a second comparator, wherein the reference voltage is coupled to an input of the first comparator and an input of the second comparator, and wherein the first capacitive element is coupled to another input of the first comparator and the second capacitive element is coupled to another input of the second comparator.

8. The oscillator circuit of Claim 1, wherein the switch control circuit further comprises a latch.

9. The oscillator circuit of Claim 1, wherein the switch control circuit further comprises a flip-flop.

10. The oscillator circuit of Claim 1, wherein a capacitive element is coupled between ground and the reference voltage coupled to the switch control circuit.

11. The oscillator circuit of Claim 1, wherein the oscillating output signal further comprises a frequency that is determined at least in part by a combination of a value of the resistive element and a value of the capacitive circuit.

12. The oscillator circuit of Claim 1, wherein the resistive element includes at least a relatively high resistance poly-silicon element with a temperature coefficient that is relatively equivalent to about zero.

13. The oscillator circuit of Claim 1, wherein the resistive element includes at least one resistor with a positive temperature coefficient and another resistor with a negative temperature coefficient, wherein a combined value for the positive temperature coefficient and the negative temperature coefficient is relatively equivalent to about zero.

14. The oscillator circuit of Claim 1, wherein the reference current is arranged to vary from about 1.7 microamps to 2.3 microamps over a supply voltage range of about 2.2 volts to 6.0 volts.

15. The oscillator circuit of Claim 1, wherein the switch control circuit further comprises a comparator for comparing the reference voltage to a voltage associated with the capacitive circuit, wherein the comparator operates in about one percent of a period that the capacitive circuit oscillates between charged and discharged.

16. An oscillator circuit, comprising:  
a variable current source that is arranged to provide a reference current, wherein the reference current is dependent on at least one of temperature and a supply voltage;  
a current mirror that is coupled to the variable current source and operable to mirror the reference current across a resistive element to produce a reference voltage, wherein a value of the resistive element is based on a temperature coefficient that is relatively independent of temperature; and  
a comparison circuit that is coupled to the reference voltage and coupled to a capacitive circuit, wherein a periodic charging and discharging of the capacitive circuit is employed by the comparison circuit to provide an oscillating output signal that is relatively independent of a change in temperature and a change in the supply voltage.

17. An oscillator circuit, comprising:

a means for a variable current source that is arranged to provide a reference current, wherein the reference current is dependent on at least one of a temperature and a supply voltage;

a means for a current mirror that is coupled to the variable current source and operable to mirror the reference current across a resistance to produce a reference voltage, wherein a value of the resistance is relatively constant and relatively independent of temperature; and

a means for a switch circuit that is coupled between the current mirror and a capacitive circuit, wherein the switch circuit is operable to periodically charge and discharge the capacitive circuit; and

a means for a switch control circuit that is coupled to the reference voltage and coupled to the capacitive circuit, wherein the periodic charging and discharging of the capacitive circuit is employed to output an oscillating output signal that is relatively independent of a change in temperature and a change in the supply voltage.